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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,872	01/16/2002	Michael J. Yancey	WEYE118151/24380A	2180
28624	7590	04/16/2004	EXAMINER	
WEYERHAEUSER COMPANY INTELLECTUAL PROPERTY DEPT., CH 1J27 P.O. BOX 9777 FEDERAL WAY, WA 98063			FORTUNA, JOSE A	
			ART UNIT	PAPER NUMBER
			1731	
DATE MAILED: 04/16/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/051,872	Applicant(s) YANCEY ET AL.	
	Examiner José A Fortuna	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 29-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 and 39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04-02, 07-03</u> . | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention: 1) treatment of pulp in the air drier, claims, 1-28 and 39; 2) producing singulated fibers by pretreatment of the fibers before drying and drying said fibers in a jet drier having a rotary air lock, claims 29-31; 3) fibers pretreated and then dried with an air stream at specified speed, claims 32-35; 4) pre-treated fibers dried under partial vacuum, claims 36-38.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

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examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Lee E. Johnson on April 9, 2004 a provisional election was made with traverse to prosecute the invention of the paper specie, claims 1-28 and 39. Affirmation of this election must be made by applicant in replying to this Office action.

Claims 29-38 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 8-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, the phrase, at the end of the claim, "surfactant caused to and a water reducing agent." Is not understood, what is a "surfactant cause to?"

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In claims 9-27 the phrases "the knot count," "the accepts" and "the fines" do not have sufficient antecedent basis. Note that the last two phrases occur from claims 17-27.

Claim 28 is vague and indefinite since the range is not understood, i.e., less than 2 percent to 10 percent, is mathematically incorrect. Should it be between 2 and 10%?

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westland et al., US Patent No. 6,184,271, (102(a)), Graef et al., US Patent No. 5,437,417, (102(b)), or Wu et al., US Patent No. 6,074,524, (102(b)), or Naieni, US Patent No. 5,873,979, (102(b)) in view of Marsh, US Patent No. 4,253,822, further evidenced by Crowther et al., GB 888,845.

Regarding claims 1-8, Westland et al., Graef et al., Wu et al., and Naieni teach crosslinked fibers with low levels of Knots or Nits. They teach also the addition of fillers or other additives to the pulp before being singulated/defibrated or fluffed. The crosslinking agents shown by the references are the same as the ones claimed, i.e., polycarboxylic acid and polymers of it. See Naieni, column 3, lines 8-26 and abstract; Wu et al. abstract and column 4, line 52 through column 5, line 7 and column 6, lines 10-50; Graef et al., abstract and column 3, lines 43-51, column 8, line 45 through column 9, line 7; Westland et al. abstract and column 7, line 41 through column 8 line 13, column 10, lines 47-58. Westland et al. teach in column 10, lines 47-58 that the Knot content of the crosslinked, defibrated pulp is preferably less than 5% and Graef et al. teach, see abstract, that the defibrated pulp has a low level of Nits, preferably less than 3. None of the above references teach the use of air-jet drier to dry the treated fibers. However, Marsh teaches a method and device for drying wood pulp by using an air jet. The advantages of using such a method are indicated by Crowther et al., i.e., faster drying as compared to conventional drum process, see page 1, lines 33-40 and fluffing of the fibers is also obtained by way of the rapid evaporation, see Crowther et al., page 2, lines 17-26.

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Therefore, using Marsh drying technique would have been obvious to one of ordinary skill in the art in order to obtain the advantages discussed above, i.e., faster drying and fluffing. Note that Westland et al. teach the treatment of the fibers, wet pulp, with a treatment substance before drying to reduce the knot content, column 7, lines 33-35. The treatment substance selected from the group consisting of a surfactant and a mineral particle, column 7, lines 33-35. The fibers are the further treated with a crosslinker and a hydrophobic material, column 9, lines 10-11.

Regarding claims 9 through 28, Westland et al., Graef et al., Wu et al., and Naieni teach knots and nit accept levels within the claimed levels. Note also that producing a pulp with a predetermined knot, nit accept and fines counts falls within the level of ordinary skill in the art as an optimization process. That is, to obtain a pulp with low knot, nit count and with accepts and fines as claimed a stricter refining and/or screening needs to be done. Optimizing result-effective variables is within the levels of ordinary skill in the art, as a simple routine experimentation, *In re Antoine*, 559 F2d 618, 195

It has been held that “[T]eachings may be obvious in the technological sense even though business or economic considerations would previously have counseled against such.” *In re Farenkopf*, 713 F2d 714: 219 USPQ 1

Claim Rejections - 35 USC § 102

11. Claim 39 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Westland et al., Graef et al., Wu et al., and Naieni, all of them cited above.

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Regarding claim 39, all of the above patents teach a crosslinked fiber similar to the ones claimed, albeit made by other process. In the event any differences can be shown for the product -by-process claim 39 as opposed to the product taught by the references Westland et al., Graef et al., Wu et al., and Naieni, such differences would have been obvious to one of ordinary skill in the art as routine modification of the product in the absence of a showing unexpected results, see *In re Thorpe*, 227 USPQ 964 (CAFC 1985).

As the afore mentioned claim is product by process claim, it is deemed that "[A]ny difference imparted by the product by process claims would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicants to establish that their product is patentably distinct..." *In re Brown*, 173 U.S.P.Q. 685, and *In re Fessmann*, 180 U.S.P.Q. 324.

Further, "[P]rocess limitations are significant only to the extent that they distinguish the claimed product over the prior art product." *In re Luck*, 177 U.S.P.Q. 523 (1973).

Conclusion

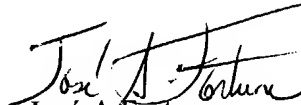
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure in the art of "Method of crosslinking fibers."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to José A Fortuna whose telephone number is 571-272-1188. The examiner can normally be reached on 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


José A Fortuna
Primary Examiner
Art Unit 1731

JAF